



## Complete Summary

### TITLE

Stroke: percent of ischemic or hemorrhagic stroke patients or their caregivers who were given educational materials during their hospital stay addressing all five specified education categories.

### SOURCE(S)

Specifications manual for national hospital inpatient quality measures, version 3.0b. Centers for Medicare & Medicaid Services (CMS), The Joint Commission; 2009 Oct. various p.

## Measure Domain

### PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

### SECONDARY MEASURE DOMAIN

Does not apply to this measure

## Brief Abstract

### DESCRIPTION

This measure\* is used to assess the percentage of patients with ischemic or hemorrhagic stroke, or their caregivers, who were given educational materials during their hospital stay addressing **all** of the following:

1. Activation of emergency medical system
2. Follow-up after discharge
3. Medications prescribed at discharge
4. Risk factors for stroke
5. Warning signs and symptoms of stroke

\*This is a Joint Commission only measure.

### RATIONALE

There are many examples of how patient education programs for specific chronic conditions have increased healthful behaviors, improved health status, and/or decreased health care costs of their participants. Clinical practice guidelines include recommendations for patient and family education during hospitalization as well as information about resources for social support services. Some clinical trials have shown measurable benefits in patient and caregiver outcomes with the application of education and support strategies. The type of stroke experienced and the resulting outcomes will play a large role in determining not only the course of treatment but also what education will be required. Patient education should include information about the event (e.g., cause, treatment, and risk factors), the role of various medications or strategies, as well as desirable lifestyle modifications to reduce risk or improve outcomes. Family/caregivers will also need guidance in planning effective and realistic care strategies appropriate to the patient's prognosis and potential for rehabilitation.

## **PRIMARY CLINICAL COMPONENT**

Stroke education

## **DENOMINATOR DESCRIPTION**

Ischemic or hemorrhagic stroke patients discharged home or home care, or discharged/transferred to court/law enforcement (see the related "Denominator Inclusions/Exclusions" field in the Complete Summary)

## **NUMERATOR DESCRIPTION**

Ischemic or hemorrhagic stroke patients with documentation that they or their caregivers were given educational material addressing **all** of the following:

1. Activation of emergency medical system
2. Follow-up after discharge
3. Medications prescribed at discharge
4. Risk factors for stroke
5. Warning signs and symptoms of stroke

**Note:** The data elements for each of the 5 education components provide the opportunity to assess each component individually. However, completion of all 5 education categories is required for this composite measure.

## **Evidence Supporting the Measure**

### **EVIDENCE SUPPORTING THE CRITERION OF QUALITY**

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence
- A formal consensus procedure involving experts in relevant clinical, methodological, and organizational sciences
- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

## Evidence Supporting Need for the Measure

### NEED FOR THE MEASURE

Use of this measure to improve performance

### EVIDENCE SUPPORTING NEED FOR THE MEASURE

Agency for Health Care Policy and Research (AHCPR), Post-Stroke Rehabilitation Guideline Panel. Post-stroke rehabilitation. Clinical practice guideline. Rockville (MD): U.S. Department of Health and Human Services, Public Health Service, AHCPR; 1995 May. 248 p.(Clinical practice guideline; no. 16). [334 references]

Duncan PW, Zorowitz R, Bates B, Choi JY, Glasberg JJ, Graham GD, Katz RC, Lamberty K, Reker D. Management of Adult Stroke Rehabilitation Care: a clinical practice guideline. Stroke2005 Sep;36(9):e100-43. [PubMed](#)

Evans RL, Matlock AL, Bishop DS, Stranahan S, Pederson C. Family intervention after stroke: does counseling or education help. Stroke1988 Oct;19(10):1243-9. [PubMed](#)

Kaiser Permanente clinical practice guidelines for acute stroke. Kaiser Permanente Medical Group; 1998.

Lorig KR, Sobel DS, Stewart AL, Brown BW Jr, Bandura A, Ritter P, Gonzalez VM, Laurent DD, Holman HR. Evidence suggesting that a chronic disease self-management program can improve health status while reducing hospitalization: a randomized trial. Med Care1999 Jan;37(1):5-14. [PubMed](#)

## State of Use of the Measure

### STATE OF USE

Current routine use

### CURRENT USE

Accreditation  
Collaborative inter-organizational quality improvement  
Internal quality improvement

## Application of Measure in its Current Use

### CARE SETTING

Hospitals

### PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Measure is not provider specific

#### **LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED**

Single Health Care Delivery Organizations

#### **TARGET POPULATION AGE**

Age greater than or equal to 18 years

#### **TARGET POPULATION GENDER**

Either male or female

#### **STRATIFICATION BY VULNERABLE POPULATIONS**

Unspecified

### **Characteristics of the Primary Clinical Component**

#### **INCIDENCE/PREVALENCE**

Among adults age 20 and older, the estimated prevalence of stroke in 2005 was 5,800,000 (about 2,300,000 males and 3,400,000 females). Each year about 780,000 people experience a new or recurrent stroke. About 600,000 of these are first attacks, and 180,000 are recurrent attacks. On average, every 40 seconds someone in the United States has a stroke.

#### **EVIDENCE FOR INCIDENCE/PREVALENCE**

American Heart Association. Heart disease and stroke statistics - 2008 update. Dallas (TX): American Heart Association; 2008. 43 p.

#### **ASSOCIATION WITH VULNERABLE POPULATIONS**

Each year, about 60,000 more women than men have a stroke. Men's stroke incidence rates are greater than women's at younger ages but not at older ages. Blacks have almost twice the risk of first-ever stroke compared with whites.

#### **EVIDENCE FOR ASSOCIATION WITH VULNERABLE POPULATIONS**

American Heart Association. Heart disease and stroke statistics - 2008 update. Dallas (TX): American Heart Association; 2008. 43 p.

#### **BURDEN OF ILLNESS**

Stroke accounted for about one of every 16 deaths in the United States in 2004. When considered separately from other cardiovascular diseases, stroke ranks No. 3 among all causes of death, behind diseases of the heart and cancer. Among

persons ages 45-64, 8 to 12 percent of ischemic strokes and 37 to 38 percent of hemorrhagic strokes result in death within 30 days.

Stroke is a leading cause of serious, long-term disability in the United States. The median survival time following a first stroke is 6.8 years for men and 7.4 years for women age 60-69 years-old. At age 80 and older, it is 1.8 years for men and 3.1 years for women.

## **EVIDENCE FOR BURDEN OF ILLNESS**

American Heart Association. Heart disease and stroke statistics - 2008 update. Dallas (TX): American Heart Association; 2008. 43 p.

## **UTILIZATION**

Unspecified

## **COSTS**

The estimated direct and indirect cost of stroke for 2008 is \$65.5 billion. The mean lifetime cost of ischemic stroke in the United States is estimated at \$140,048. This includes inpatient care, rehabilitation, and follow-up care necessary for lasting deficits.

## **EVIDENCE FOR COSTS**

American Heart Association. Heart disease and stroke statistics - 2008 update. Dallas (TX): American Heart Association; 2008. 43 p.

# **Institute of Medicine National Healthcare Quality Report Categories**

## **IOM CARE NEED**

Getting Better

## **IOM DOMAIN**

Effectiveness  
Patient-centeredness  
Safety

# **Data Collection for the Measure**

## **CASE FINDING**

Users of care only

## **DESCRIPTION OF CASE FINDING**

Stroke inpatients discharged with a specified International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Principal Diagnosis Code for ischemic or hemorrhagic stroke

## **DENOMINATOR SAMPLING FRAME**

Patients associated with provider

## **DENOMINATOR INCLUSIONS/EXCLUSIONS**

### **Inclusions**

Stroke patients with an International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Principal Diagnosis Code for ischemic or hemorrhagic stroke, as listed in Appendix A of the specifications manual, who are discharged to home or home care, or discharged/transferred to court/law enforcement

### **Exclusions**

- Patients less than 18 years of age
- Patients who have a Length of Stay greater than 120 days
- Patients with *Comfort Measures Only* documented
- Patients enrolled in clinical trials
- Patients admitted for *Elective Carotid Intervention*

## **RELATIONSHIP OF DENOMINATOR TO NUMERATOR**

All cases in the denominator are equally eligible to appear in the numerator

## **DENOMINATOR (INDEX) EVENT**

Clinical Condition  
Institutionalization

## **DENOMINATOR TIME WINDOW**

Time window brackets index event

## **NUMERATOR INCLUSIONS/EXCLUSIONS**

### **Inclusions**

Ischemic or hemorrhagic stroke patients with documentation that they or their caregivers were given educational material addressing **all** of the following:

1. Activation of emergency medical system
2. Follow-up after discharge
3. Medications prescribed at discharge
4. Risk factors for stroke
5. Warning signs and symptoms of stroke

**Note:** The data elements for each of the 5 education components provide the opportunity to assess each component individually. However, completion of all 5 education categories is required for this composite measure.

**Exclusions**

None

**MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS**

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

**NUMERATOR TIME WINDOW**

Institutionalization

**DATA SOURCE**

Administrative data  
Medical record

**LEVEL OF DETERMINATION OF QUALITY**

Individual Case

**PRE-EXISTING INSTRUMENT USED**

Get With The Guidelines (GWTG, American Heart Association/American Stroke Association) electronic tool may be used for data collection.

**Computation of the Measure**

**SCORING**

Rate

**INTERPRETATION OF SCORE**

Better quality is associated with a higher score

**ALLOWANCE FOR PATIENT FACTORS**

Unspecified

**STANDARD OF COMPARISON**

Internal time comparison

## Evaluation of Measure Properties

### EXTENT OF MEASURE TESTING

Unspecified

## Identifying Information

### ORIGINAL TITLE

STK-8: stroke education.

### MEASURE COLLECTION

[National Hospital Inpatient Quality Measures](#)

### MEASURE SET NAME

[Stroke](#)

### SUBMITTER

Centers for Medicare & Medicaid Services  
Joint Commission, The

### DEVELOPER

Centers for Medicare & Medicaid Services/The Joint Commission

### FUNDING SOURCE(S)

All external funding for measure development has been received and used in full compliance with The Joint Commission's Corporate Sponsorship policies, which are available upon written request to The Joint Commission.

### COMPOSITION OF THE GROUP THAT DEVELOPED THE MEASURE

The composition of the group that developed the measure is available at:  
[http://www.jointcommission.org/CertificationPrograms/PrimaryStrokeCenters/stroke\\_advisory\\_panel.htm](http://www.jointcommission.org/CertificationPrograms/PrimaryStrokeCenters/stroke_advisory_panel.htm).

### FINANCIAL DISCLOSURES/OTHER POTENTIAL CONFLICTS OF INTEREST

Expert panel members have made full disclosure of relevant financial and conflict of interest information in accordance with the Joint Commission's Conflict of Interest policies, copies of which are available upon written request to The Joint Commission.

### ENDORSER



National Quality Forum

## **ADAPTATION**

Measure was not adapted from another source.

## **RELEASE DATE**

2009 Apr

## **MEASURE STATUS**

This is the current release of the measure.

## **SOURCE(S)**

Specifications manual for national hospital inpatient quality measures, version 3.0b. Centers for Medicare & Medicaid Services (CMS), The Joint Commission; 2009 Oct. various p.

## **MEASURE AVAILABILITY**

The individual measure, "STK-8: Stroke Education," is published in "Specifications Manual for National Hospital Inpatient Quality Measures." This document is available in Portable Document Format (PDF) from [The Joint Commission Web site](#). Information is also available from the [Centers for Medicare & Medicaid Services \(CMS\) Web site](#). Check The Joint Commission Web site and CMS Web site regularly for the most recent version of the specifications manual and for the applicable dates of discharge.

## **NQMC STATUS**

The measure developer informed NQMC that this measure was updated on April 30, 2009 and provided an updated version of the NQMC summary. This NQMC summary was updated accordingly by ECRI Institute on September 9, 2009.Â The information was verified by the measure developer on November 9, 2009.

## **COPYRIGHT STATEMENT**

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